Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9 (canceled)

10. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if a level of the signal reaches a second level higher than a first level within a predetermined time after reaching the first level.

11. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if a level of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

12. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a

signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if the frequency of the signal is outside a predetermined frequency range.

13. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, comprising:

a first detector for detecting that a level of the signal reaches a second level higher than a first level within a predetermined time after reaching the first level;

a second detector for detecting that a maximum level in one cycle of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time; and

a third detector for detecting that the frequency of the signal is outside a predetermined frequency range, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion when any one of the first, second, and third detectors has detected the signal.

14. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, comprising:

a first detector for detecting that a level of the signal reaches a second level higher than a first level within a predetermined time after reaching the first level; and

a second detector for detecting that a maximum level in one cycle of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion when both of the first and second detectors have detected the signal.

15. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, comprising:

a first detector for detecting that a maximum level in one cycle of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time; and

a second detector for detecting that the frequency of the signal is outside a predetermined frequency range, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion when both of the first and second detectors have detected the signal.

16. (New) A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if a level of the signal reaches a second level higher than the first level within a predetermined time after reaching the first level.

17. (New) A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into the vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if a level of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

18. (New) A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into the vehicle on the basis of a signal produced by a wave transmitted inside the vehicle and a reflected wave thereof, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the signal as indicating an intrusion if the frequency of the signal is outside a predetermined frequency range.

19. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle, comprising:

a transmitter for transmitting a wave inside a vehicle;

a receiver for receiving a reflected wave thereof;

a mixer for producing a signal from the transmitted wave and the received wave; and

a computer for detecting an intrusion into a vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if a level of the signal reaches a second level higher than the first level within a predetermined time after reaching the first level.

20. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle, comprising:

a transmitter for transmitting a wave inside a vehicle;

a receiver for receiving a reflected wave thereof;

a mixer for producing a signal from the transmitted wave and the received wave; and

a computer for detecting an intrusion into a vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if a level of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

21. (New) A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle, comprising:

a transmitter for transmitting a wave inside a vehicle;

a receiver for receiving a reflected wave thereof;

a mixer for producing a signal from the transmitted wave and the received wave; and

a computer for detecting an intrusion into a vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if the frequency of the signal is outside a predetermined frequency range.

22. (New) A method of detecting an intrusion into a vehicle, comprising the steps of:

transmitting a wave inside the vehicle;

receiving a reflected wave thereof;

producing a signal from the transmitted wave and the received wave;

detecting an intrusion into the vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if a level of the signal reaches a second level higher than the first level within a predetermined time after reaching the first level.

23. (New) A method of detecting an intrusion into a vehicle, comprising the steps of:

transmitting a wave inside the vehicle;

receiving a reflected wave thereof;

producing a signal from the transmitted wave and the received wave;

detecting an intrusion into the vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if a level of the signal that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

24. (New) A method of detecting an intrusion into a vehicle, comprising the steps of:

transmitting a wave inside the vehicle;

receiving a reflected wave thereof;

producing a signal from the transmitted wave and the received wave;

detecting an intrusion into the vehicle on the basis of the signal, wherein

the detection of the intrusion is ignored if the frequency of the signal is outside the predetermined frequency range.